HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 87 Tax on Severance and Production of Oil
SPONSOR(S): Energy & Utilities Subcommittee, Hudson
TIED BILLS: **IDEN./SIM. BILLS:** SB 1188

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Energy & Utilities Subcommittee	10 Y, 4 N, As CS	Keating	Collins
2) Finance & Tax Committee			
3) State Affairs Committee			

SUMMARY ANALYSIS

The bill amends s. 211.02(1), F.S., to define a new class of oil, "mature field recovery oil," and to apply the tiered tax rates for tertiary oil to the newly defined class.

The bill defines "mature field recovery oil" as "the barrels of oil recovered from new wells that begin production after July 1, 2012, in fields that were discovered prior to 1981." Sixteen of Florida's 22 oil fields were discovered prior to 1981, and seven of those fields are currently plugged and abandoned (five in Southwest Florida).

Unless recovered through tertiary methods, oil recovered from new wells in these "mature" fields is currently subject to a severance tax rate of 8%. The bill applies the tiered severance tax rates applicable to tertiary oil to the newly defined class of "mature field recovery oil" created by the bill. Thus, the bill applies the following severance tax rates to "mature field recovery oil" based on the value of the oil:

- 9% of the gross value of oil on the value of oil $80 and above per barrel
- 7% of the gross value of oil on the value of oil above $60 and below $80 per barrel
- 1% of the gross value of oil on the value of oil $60 and below per barrel

According to the U.S. Department of Energy's (U.S. DOE) website, crude oil development and production in U.S. oil reservoirs can include up to three distinct phases: primary, secondary, and tertiary (or enhanced) recovery. During primary recovery, only about 10 percent of a reservoir's original oil in place is typically produced. Secondary recovery techniques can result in the recovery of 20 to 40 percent of the original oil in place. With much of the easy-to-produce oil already recovered from U.S. oil fields, some producers have attempted tertiary, or enhanced oil recovery (EOR), techniques that may ultimately produce 30 to 60 percent or more of the reservoir's original oil in place but at relatively high cost. Based on the geology of a particular field, tertiary recovery methods may not be feasible, though other methods, such as horizontal drilling, may be used to recover this additional oil. The bill appears to place these alternative recovery methods, which do not meet the strict definition of tertiary recovery methods, on the same tax footing as tertiary recovery methods.

The economic impacts of this bill will likely depend on oil producers' costs and current and forecast market conditions for oil. Because the bill helps to lower producers' costs, the bill could encourage additional oil production in Florida.

The Revenue Estimating Conference has not yet addressed this bill.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

According to the U.S. Department of Energy's (U.S. DOE) website, crude oil development and production in U.S. oil reservoirs can include up to three distinct phases: primary, secondary, and tertiary (or enhanced) recovery. During primary recovery, only about 10 percent of a reservoir's original oil in place is typically produced. Secondary recovery techniques can result in the recovery of 20 to 40 percent of the original oil in place. With much of the easy-to-produce oil already recovered from U.S. oil fields, some producers have attempted tertiary, or enhanced oil recovery (EOR), techniques that may ultimately produce 30 to 60 percent or more of the reservoir's original oil in place but at relatively high cost.

According to the U.S. DOE website, three major categories of EOR have been found to be commercially successful to varying degrees:

- Thermal recovery, which involves the introduction of heat to lower the viscosity of heavy viscous oil and improve its ability to flow through the reservoir (accounting for over 40 percent of U.S. EOR production in the U.S.);

- Gas injection, which uses gases such as natural gas, nitrogen, or carbon dioxide that expand in a reservoir to push additional oil to a production wellbore, or other gases that dissolve in the oil to lower its viscosity and improves its flow rate (accounting for nearly 60 percent of EOR production in the U.S.); and

- Chemical injection, which can involve the use of long-chained molecules called polymers to increase the effectiveness of waterfloods, or the use of detergent-like surfactants to help lower the surface tension that often prevents oil droplets from moving through a reservoir (accounting for about one percent of U.S. EOR production).

Section 211.02(1), F.S., provides for an excise tax to be levied upon production of oil within Florida for sale, transport, storage, profit, or commercial use. The tax is measured by the value of the oil produced and saved or sold during a month. The current tax rate for small well oil[1] is 5 percent of the gross value. The tax rate for tertiary oil[2] varies based on the gross value of the oil and applies as follows: 1 percent of the gross value of oil on the value of oil $60 dollars and below; 7 percent of the gross value of oil on the value of oil above $60 and below $80; and 9 percent of the gross value of oil on the value of oil $80 and above. The tax rate for all other oil is 8 percent of the gross value.

The Florida Department of Environmental Protection (DEP) oversees permitting for oil and gas drilling, production, and exploration within Florida. As of November 30, 2011, DEP's website identified seven active operators of oil and gas wells in Florida. These operators produce oil from fields in two areas in Florida: the upper-northwest Florida Panhandle and the eastern portions of several Southwest Florida counties. In 2010, the South Florida fields yielded 775,285 barrels of oil, and the Northwest Florida fields yielded 1,002,082 barrels of oil. The largest active field in Northwest Florida uses tertiary recovery methods.

[1] " Small well oil" is defined in s. 211.01(21), F.S., as oil produced from a well from which less than 100 barrels of oil per day are severed, considering only those days of the month during which production of oil from the well actually occurred.

[2] "Tertiary oil" is defined in s. 211.02(3)(a), F.S., as the excess barrels of oil produced, or estimated to be produced, as a result of the actual use of a tertiary recovery method in a qualified enhanced oil recovery project, over the barrels of oil which could have been produced by continued maximum feasible production methods in use prior to the start of tertiary recovery. A "qualified enhanced oil recovery project" means a project for enhancing recovery of oil which meets the requirements of 26 U.S.C. s. 43(c)(2) or substantially similar requirements.

According to the DEP's 2010 Oil, Gas, and Water Production Data for the State of Florida[3], there are 22 oil fields in Florida, eleven of which are plugged and abandoned. Sixteen of the 22 total oil fields in Florida were discovered prior to 1981, seven of which are currently plugged and abandoned. Two of the seven plugged and abandoned fields discovered prior to 1981 are located in Northwest Florida, and the remaining five are located in Southwest Florida. The plugged and abandoned fields in Florida produced a cumulative total of 17,459,000 barrels of oil while in operation. Some estimates indicate that as much as one-third of the recoverable oil remains in these fields. Based on the geology of a particular field, tertiary recovery methods may not be feasible, though other methods, such as horizontal drilling, may be used to recover this additional oil.

Effect of Proposed Changes

The bill amends s. 211.02(1), F.S., to define a new class of oil, "mature field recovery oil," and to apply the tiered tax rates for tertiary oil to the newly defined class.

The bill defines "mature field recovery oil" as "the barrels of oil recovered from new wells that begin production after July 1, 2012, in fields that were discovered prior to 1981." As noted above, sixteen of Florida's 22 oil fields were discovered prior to 1981, and seven of those fields are currently plugged and abandoned (five in Southwest Florida).

Unless recovered through tertiary methods, oil recovered from new wells in these "mature" fields is currently subject to a severance tax rate of 8%. The bill applies the tiered severance tax rates applicable to tertiary oil to the newly defined class of "mature field recovery oil" created by the bill. Thus, the bill applies the following severance tax rates to "mature field recovery oil" based on the value of the oil:

- 9% of the gross value of oil on the value of oil $80 and above per barrel
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Production from new wells generally starts at higher levels and declines over time. For mature fields, particularly those that have been plugged and abandoned, most of the easy-to-produce oil has already been recovered. Based on the geology of a particular field, tertiary recovery methods may be feasible for extracting the remaining oil but are more costly than primary and secondary methods. Where tertiary recovery methods are not feasible, alternative methods such as horizontal drilling may allow a producer to extract the remaining oil. The bill appears to place these alternative recovery methods, which do not meet the strict definition of tertiary recovery methods, on the same tax footing as tertiary recovery methods.

Depending upon a producer's cost structure and the price of oil at a given time, this tiered tax structure might encourage new production from low producing or plugged and abandoned fields when production would not otherwise be economical at that time, might not impact production at all, or might allow for greater profitability from production at that time.

According to forecasts by the U.S. DOE's Energy Information Administration (EIA), the nominal price for crude oil, which reached a low of $59.04 per barrel in 2009, will end 2011 at $82.10 per barrel and will continue to rise. The EIA forecasts a price of $99.05 per barrel in 2016 and $124.05 per barrel in 2021, with continuing price increases thereafter. Based on the tiered severance tax rates, the effective tax rate for mature field recovery oil priced at $80 per barrel would be 2.5 percent; at $100 per barrel would be 3.8 percent; and at $125 per barrel would be 4.84%. To the extent that these rates (which are lower than the 8 percent rate in current law) encourage production of oil from existing fields that otherwise would not be produced, the bill will generate revenues that otherwise would not have been generated. If oil prices rise to a level that would make such production attractive regardless of the applicable tax rate, the effect of the bill could be a negative impact on tax revenues.

[3] http://www.dep.state.fl.us/water/mines/oil_gas/water_production.htm

B. SECTION DIRECTORY:

Section 1. Amends s. 211.02(1), F.S., relating to the excise tax on oil production.

Section 2. Provides an effective date of July 1, 2012.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   The Revenue Estimating Conference has not yet addressed this bill.

2. Expenditures:

   None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   The Revenue Estimating Conference has not yet addressed this bill.

2. Expenditures:

   None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill reduces overall tax costs for producers of mature field recovery oil (i.e., oil produced after July 1, 2012, from new wells in fields that were discovered prior to 1981). To the extent that the bill stimulates production of such oil that would otherwise not be produced, it will likely result in royalty payments to mineral rights owners and creation of additional jobs.

D. FISCAL COMMENTS:

The excise tax collected on oil and gas production in Florida is placed in the Oil and Gas Tax Trust Fund. Pursuant to s. 211.06, F.S., the proceeds from oil severance taxes in this fund are credited as follows:

- General Revenue Fund of the state
  - 67.5% of proceeds from tax on small well oil and tertiary oil
  - 75.0% of proceeds from tax on all other oil production
- General Revenue Fund of the board of county commissioners in county where produced
  - 20.0% of proceeds from tax on small well oil and tertiary oil
  - 12.5% of proceeds from tax on all other oil production
- Minerals Trust Fund (DEP)
  - 12.5% of proceeds from tax on small well oil and tertiary oil
  - 12.5% of proceeds from tax on all other oil production

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to: require counties or municipalities to spend funds or take an action requiring the expenditure of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of a state tax shared with counties or municipalities.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

Not applicable. The bill does not appear to grant or amend agency rule-making authority.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On December 6, 2011, the Energy & Utilities Subcommittee adopted a proposed committee substitute to HB 87. HB 87 provides exemptions from the tax on severance and production to certain wells that produce oil or gas on or after a certain date and limits the duration of those exemptions. The proposed committee substitute replaces the provisions of HB 87 in their entirety with provisions that define the term “mature field recovery oil” and apply to such oil the existing tiered severance tax rates applicable to tertiary oil under existing law.